

CLAIMS

What is claimed is:

1. A printing method comprising:
 - 5 determining locations in a printed image for a plurality of first color dots and locations in said printed image for a plurality of second color dots; and
 - 10 determining locations in said printed image for a plurality of third color dots, wherein said locations for said third color dots are dependent on said locations of said first color dots and said locations of said second color dots.
 2. The printing method of Claim 1 comprising:
 - a) determining whether a dot of said first color is to be printed at a particular location;
 - 15 b) determining whether a dot of said second color is to be printed at said particular location;
 - c) subsequent to said steps a) and b), determining whether a dot of a third color is to be printed at said particular location, wherein printing of a dot of said third color at said particular location is dependent on satisfying a condition for deciding when overlap of a dot of said third color with a dot of another color at said particular location is acceptable; and
 - 20 d) printing a dot of said third color at said particular location when said condition is satisfied and otherwise not printing a dot of said third color.
 - 25 3. The printing method of Claim 2 comprising:
 - printing said dot of said third color at said particular location when a dot of said first color and a dot of said second color are not to be printed at said particular location.
 - 30 4. The printing method of Claim 2 further comprising:
 - performing error diffusion to modify an intensity value of said dot of said third color resulting in a modified third color intensity value for said dot of said third color;
 - limiting said modified third intensity value to a predefined range; and
 - 35 printing said dot of said third color at said particular location when a dot of said first color and a dot of said second color are not to be printed at

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said particular location and when a condition based on said modified third color intensity value is satisfied, and otherwise not printing said dot of said third color.

5 5. The printing method of Claim 2 comprising:
not printing said dot of said third color at said particular location when a dot of said first color and a dot of said second color are to be printed at said particular location.

10 6. The printing method of Claim 2 comprising:
determining an amount of fill at said particular location when it is determined that a dot of another color is to be printed at said particular location.

15 7. The printing method of Claim 6 further comprising:
not printing said dot of said third color at said particular location when there is less than 100 percent fill at said particular location.

20 8. The printing method of Claim 6 further comprising:
performing error diffusion to modify an intensity value of said dot of said third color resulting in a modified third color intensity value for said dot of said third color;
performing error diffusion to modify an intensity value of said dot of said first color resulting in a modified first color intensity value for said dot of said first color; and
printing said dot of said third color at said particular location when there is greater than or equal to 100 percent fill at said particular location and when a condition based on said modified third color intensity value and said modified first color intensity value is satisfied, and otherwise not printing said dot of said third color.

25 9. The printing method of Claim 1 wherein said first color and said second color are selected from the group consisting of cyan and magenta and wherein said third color is yellow.

10. The printing method of Claim 1 wherein said printing is performed using an inkjet printer.

11. A system used in printing, said system comprising:
5 a memory unit; and
a controller coupled to said memory unit, said controller for executing a printing method, said printing method comprising:

10 determining locations in a printed image for a plurality of first color dots and locations in said printed image for a plurality of second color dots; and
determining locations in said printed image for a plurality of third color dots, wherein said locations for said third color dots are dependent on said locations of said first color dots and said locations of said second color dots.

15 12. The system of Claim 11 wherein said method comprises:
a) determining whether a dot of said first color is to be printed at a particular location;
b) determining whether a dot of said second color is to be printed at 20 said particular location;
c) subsequent to said steps a) and b) of said method, determining whether a dot of a third color is to be printed at said particular location, wherein printing of a dot of said third color at said particular location is dependent on satisfying a condition for deciding when overlap of a dot of 25 said third color with a dot of another color at said particular location is acceptable; and
d) printing a dot of said third color at said particular location when said condition is satisfied and otherwise not printing a dot of said third color.

30 13. The system of Claim 12 wherein said method comprises:
printing said dot of said third color at said particular location when a dot of said first color and a dot of said second color are not to be printed at said particular location.

14. The system of Claim 12 wherein said method further comprises:

5 performing error diffusion to modify an intensity value of said dot of said third color resulting in a modified third color intensity value for said dot of said third color;

10 limiting said modified third intensity value to a predefined range; and printing said dot of said third color at said particular location when a dot of said first color and a dot of said second color are not to be printed at said particular location and when a condition based on said modified third color intensity value is satisfied, and otherwise not printing said dot of said third color.

15. The system of Claim 12 wherein said method comprises:

15 not printing said dot of said third color at said particular location when a dot of said first color and a dot of said second color are to be printed at said particular location.

20. The system of Claim 12 wherein said method comprises:

20 determining an amount of fill at said particular location when it is determined that a dot of another color is to be printed at said particular location.

25. The system of Claim 16 wherein said method further comprises:

25 not printing said dot of said third color at said particular location when there is less than 100 percent fill at said particular location.

30. The system of Claim 16 wherein said method further comprises:

30 performing error diffusion to modify an intensity value of said dot of said third color resulting in a modified third color intensity value for said dot of said third color;

35 performing error diffusion to modify an intensity value of said dot of said first color resulting in a modified first color intensity value for said dot of said first color; and

printing said dot of said third color at said particular location when there is greater than or equal to 100 percent fill at said particular location and when a condition based on said modified third color intensity value and said modified first color intensity value is satisfied, and otherwise not printing
5 said dot of said third color.

19. The system of Claim 11 wherein said first color and said second color are selected from the group consisting of cyan and magenta and wherein said third color is yellow.

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20. The system of Claim 11 wherein said printing is performed using an inkjet printer.

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21. A computer-readable medium having computer-readable code stored thereon for causing a system used in printing to perform a printing method comprising:

determining locations in a printed image for a plurality of first color dots and locations in said printed image for a plurality of second color dots; and

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determining locations in said printed image for a plurality of third color dots, wherein said locations for said third color dots are dependent on said locations of said first color dots and said locations of said second color dots.

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22. The computer-readable medium of Claim 21 wherein said computer-readable program code embodied therein causes a system used for printing to perform a printing method comprising:

a) determining whether a dot of said first color is to be printed at a particular location;

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b) determining whether a dot of said second color is to be printed at said particular location;

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c) subsequent to said steps a) and b), determining whether a dot of a third color is to be printed at said particular location, wherein printing of a dot of said third color at said particular location is dependent on satisfying a condition for deciding when overlap of a dot of said third color with a dot of another color at said particular location is acceptable; and

40 d) printing a dot of said third color at said particular location when said condition is satisfied and otherwise not printing a dot of said third color.

45 23. The computer-readable program code embodied therein causes a system used for printing to perform a printing method comprising:

50 printing said dot of said third color at said particular location when a dot of said first color and a dot of said second color are not to be printed at said particular location.

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55 24. The computer-readable program code embodied therein causes a system used for printing to perform a printing method comprising:

60 performing error diffusion to modify an intensity value of said dot of said third color resulting in a modified third color intensity value for said dot of said third color;

65 limiting said modified third intensity value to a predefined range; and printing said dot of said third color at said particular location when a dot of said first color and a dot of said second color are not to be printed at 70 said particular location and when a condition based on said modified third color intensity value is satisfied, and otherwise not printing said dot of said third color.

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75 25. The computer-readable program code embodied therein causes a system used for printing to perform a printing method comprising:

80 not printing said dot of said third color at said particular location when a dot of said first color and a dot of said second color are to be printed at said particular location.

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85 26. The computer-readable program code embodied therein causes a system used for printing to perform a printing method comprising:

90 determining an amount of fill at said particular location when it is determined that a dot of another color is to be printed at said particular location.

27. The computer-readable medium of Claim 26 wherein said computer-readable program code embodied therein causes a system used for printing to perform a printing method comprising:

5 not printing said dot of said third color at said particular location when there is less than 100 percent fill at said particular location.

28. The computer-readable medium of Claim 26 wherein said computer-readable program code embodied therein causes a system used for printing to perform a printing method comprising:

10 performing error diffusion to modify an intensity value of said dot of said third color resulting in a modified third color intensity value for said dot of said third color;

15 performing error diffusion to modify an intensity value of said dot of said first color resulting in a modified first color intensity value for said dot of said first color; and

20 printing said dot of said third color at said particular location when there is greater than or equal to 100 percent fill at said particular location and when a condition based on said modified third color intensity value and said modified first color intensity value is satisfied, and otherwise not printing said dot of said third color.

25 29. The computer-readable medium of Claim 21 wherein said first color and said second color are selected from the group consisting of cyan and magenta and wherein said third color is yellow.

30. The computer-readable medium of Claim 21 wherein said printing is performed using an inkjet printer.